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27 November 2012

Jim Fleer  
Oxford Environmental & Safety, Inc  
14348 Nieman Rd.  
Overland Park, KS 66221

RE: Arkwood Monthly Sampling  
SDG Number: 1211204

Enclosed are the results of analyses for samples received by the laboratory on 20-Nov-12 10:30. If you have any questions concerning this report, please feel free to contact me.

Sample Receipt Information:

|                        |       |
|------------------------|-------|
| Custody Seals          | ✓     |
| Containers Correct     | ✓     |
| COC/Labels Agree       | ✓     |
| Preservation Confirmed | ✓     |
| Received On Ice        | ✓     |
| Temperature on Receipt | 2.0°C |

Sincerely,

A handwritten signature in blue ink that reads "Norma James".

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Norma James  
President

27 November 2012



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## **CASE NARRATIVE**

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Sample Delivery Group - 1211204

### Semivolatiles Analysis:

The three compounds labeled (surr) on the attached final report are "surrogates." Recovery of surrogates is for lab use only to determine the effectiveness of the extraction procedure; surrogate recoveries are not analytical results. The three surrogate compounds are as follows: 2,4,6-tribromophenol, 2-fluorophenol, and Phenol-d5.

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#### ANALYTICAL RESULTS

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Lab Number: 1211204-01  
Sample Name: Mouth  
Date/Time Collected: 11/19/12 8:20  
Sample Matrix: Water

| <u>Semivolatiles</u>        | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|-----------------------------|--------------|---------------|---------------------|---------------------------|--------------|---------------|
| Pentachlorophenol           | ug/L         | 28.8          |                     | 11/21/12 14:50            | A211253      | 8270D         |
| 2,4,6-Tribromophenol [surr] | %            | 94.0          |                     | 11/21/12 14:50            | A211253      | 8270D         |
| 2-Fluorophenol [surr]       | %            | 54.1          |                     | 11/21/12 14:50            | A211253      | 8270D         |
| Phenol-d5 [surr]            | %            | 38.0          |                     | 11/21/12 14:50            | A211253      | 8270D         |

#### ANALYTICAL RESULTS

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Lab Number: 1211204-02  
Sample Name: Weir  
Date/Time Collected: 11/19/12 8:02  
Sample Matrix: Water

| <u>Semivolatiles</u>        | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|-----------------------------|--------------|---------------|---------------------|---------------------------|--------------|---------------|
| Pentachlorophenol           | ug/L         | < 5.00        |                     | 11/21/12 14:08            | A211253      | 8270D         |
| 2,4,6-Tribromophenol [surr] | %            | 88.9          |                     | 11/21/12 14:08            | A211253      | 8270D         |
| 2-Fluorophenol [surr]       | %            | 52.7          |                     | 11/21/12 14:08            | A211253      | 8270D         |
| Phenol-d5 [surr]            | %            | 36.5          |                     | 11/21/12 14:08            | A211253      | 8270D         |

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## QUALITY CONTROL RESULTS

### Semivolatiles - Quality Control Analyzed: 19-Nov-12 11:13 By: TB

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

#### Batch A211253 - 3510C Modified

##### Blank (A211253-BLK1)

Prepared & Analyzed: 19-Nov-12

|                                 |      |      |      |      |  |      |           |  |  |  |
|---------------------------------|------|------|------|------|--|------|-----------|--|--|--|
| Pentachlorophenol               | ND   | 5.00 | ug/L |      |  |      |           |  |  |  |
| Surrogate: 2,4,6-Tribromophenol | 31.3 |      | "    | 40.0 |  | 78.1 | 19.3-113  |  |  |  |
| Surrogate: 2-Fluorophenol       | 21.7 |      | "    | 40.0 |  | 54.2 | 13-75.4   |  |  |  |
| Surrogate: Phenol-d5            | 16.3 |      | "    | 40.0 |  | 40.7 | 13.1-75.2 |  |  |  |

##### LCS (A211253-BS1)

Prepared & Analyzed: 19-Nov-12

|                                 |      |      |      |      |  |      |           |  |  |  |
|---------------------------------|------|------|------|------|--|------|-----------|--|--|--|
| Pentachlorophenol               | 37.9 | 5.00 | ug/L | 40.0 |  | 94.8 | 48.5-124  |  |  |  |
| Surrogate: 2,4,6-Tribromophenol | 38.2 |      | "    | 40.0 |  | 95.4 | 19.3-113  |  |  |  |
| Surrogate: 2-Fluorophenol       | 21.9 |      | "    | 40.0 |  | 54.6 | 13-75.4   |  |  |  |
| Surrogate: Phenol-d5            | 17.0 |      | "    | 40.0 |  | 42.6 | 13.1-75.2 |  |  |  |

##### LCS Dup (A211253-BSD1)

Prepared & Analyzed: 19-Nov-12

|                                 |      |      |      |      |  |      |           |       |    |  |
|---------------------------------|------|------|------|------|--|------|-----------|-------|----|--|
| Pentachlorophenol               | 38.3 | 5.00 | ug/L | 40.0 |  | 95.7 | 48.5-124  | 0.945 | 25 |  |
| Surrogate: 2,4,6-Tribromophenol | 33.1 |      | "    | 40.0 |  | 82.7 | 19.3-113  |       |    |  |
| Surrogate: 2-Fluorophenol       | 22.1 |      | "    | 40.0 |  | 55.2 | 13-75.4   |       |    |  |
| Surrogate: Phenol-d5            | 18.0 |      | "    | 40.0 |  | 44.9 | 13.1-75.2 |       |    |  |

##### Matrix Spike (A211253-MS1)

Source: 1211154-01

Prepared & Analyzed: 19-Nov-12

|                                 |      |      |      |      |    |      |           |  |  |  |
|---------------------------------|------|------|------|------|----|------|-----------|--|--|--|
| Pentachlorophenol               | 42.4 | 5.00 | ug/L | 40.0 | ND | 106  | 29.2-146  |  |  |  |
| Surrogate: 2,4,6-Tribromophenol | 37.6 |      | "    | 40.0 |    | 94.1 | 19.3-113  |  |  |  |
| Surrogate: 2-Fluorophenol       | 24.4 |      | "    | 40.0 |    | 61.1 | 13-75.4   |  |  |  |
| Surrogate: Phenol-d5            | 19.0 |      | "    | 40.0 |    | 47.4 | 13.1-75.2 |  |  |  |

All Analysis performed according to EPA approved methodology when available:

SW 846, Revised December, 1996; EPA 600/4-79-020, Revised March, 1983; Standard Methods, 20th Edition.

Instrument calibration and quality control samples performed at or above frequency specified in analytical method.

A handwritten signature in blue ink, reading "Norma James", is positioned above the "Reviewed by:" line.

Reviewed by: \_\_\_\_\_

Norma James  
President

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